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Lawrence Morrin
Regional Director
Bureau of Indian Affairs
Southwest Regional Office
P.O. Box 26567
Albuquerque, NM 87125

Dear Mr. Morrin:

On June 26 and 27, Dave Conklin of our staff met with Bill Hornsby of the Mescalero Agency to evaluate a proposed FY 2008 dwarf mistletoe control project on the Mescalero Apache Reservation. This proposal (**Project 1**) includes follow-up treatment in 2,771 acres of recently harvested ponderosa pine and mixed conifer forest in the Upper Pine Tree and Elk-Silver logging units. Robert Campbell (Mescalero Agency), who laid-out the Elk-Silver sale, joined Bill and Dave for an examination of that area. This letter describes the proposed project areas and planned treatments, and includes our recommendations. Supporting information is also provided for the Agency's FY 2008 western spruce budworm monitoring proposal **(Project 2)**.

Upper Pine Tree. A total of 1716 acres of ponderosa pine and dry mixed conifer forest are proposed for follow-up treatment here in FY 2008. Prescriptions are largely determined by stand structure (pre-sale), species composition, and dwarf mistletoe severity: these are dispersed throughout the area as shelterwood (972 acres), single-tree-selection (585 acres), free thin (131 acres), and clear cut (28 acres). Site quality is moderate to good in all these areas, but tends to be higher in the single tree selection and free thin portions.

Shelterwood blocks are two-storied or multi-storied stands with moderate to severe ponderosa pine mistletoe infection. The current entry is described as "removal phase with reserves"; as discussed in the Agency's proposal, it could also be termed "liberation cut" since previous entries (20+ years ago) were selective harvests rather than true shelterwood seed cuts. Regardless, the recent sale has left basal areas of 10 to 40 ft^2/acre in uninfected pine and/or Douglas-fir. The proposed treatment would slash all remaining pine above knee-high within infested portions, retaining non-host trees (where available) on an average 25-foot spacing. Uninfected pine (where present) would be thinned to 20-foot average spacing.

Single-tree selection areas are generally multi-storied and have relatively light pine dwarf mistletoe infection. The recent sale retained 40 to 50 ft^2/acre of larger trees. The proposed follow-up treatment would thin the understory to an average 20-foot (for pine) or 25-foot spacing (for Douglas-fir and other species), with ponderosa pine the preferred species. All visibly-infected pine and all pine within 50 feet of visible infection would be cut.

Free thin areas are dominated by Douglas-fir and tend to be single-storied. Douglas-fir dwarf mistletoe is present, and generally light and patchy in distribution. The remaining ponderosa

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pine component also has scattered infections. The harvest and follow-up treatments will provide residual basal areas of about 70 ft^2/acre. All visibly-infected trees and all host trees within 50 feet will be cut.

A single clear cut block has severe infection in both the Douglas-fir and ponderosa pine. All visibly infected trees and all host trees within 30 feet would be cut. Due to inadequate stocking of non-host trees and a paucity of existing young regeneration, this area may be re-planted following treatment.

Elk-Silver. A total of 1,055 acres of recently harvested mixed conifer forest are proposed for follow-up treatment here in FY 2008. This area, located on the north side of Cooley Canyon, is adjacent to the FY 2007 project area in Morgan Canyon (see our 3420 letter of August 16, 2006). Included are 635 acres designated as shelterwood (removal phase with reserves, as abovc) and 420 acres of single tree selection. Site quality is moderate to good throughout the area. Note that several stands in this area received only a light "sanitation-salvage" cut in the current entry and are not slated for follow-up treatment; these had been previously logged in the early 1990s as part of the large "Forest Health" sale, in response to a roundheaded pine beetle outbreak.

Shelterwood blocks generally include the drier portions of the unit. Douglas fir is the most abundant species, although ponderosa pine is still a major component throughout most of these stands. Southwestern white pine is also a significant component in several stands. Ponderosa pine mistletoe is widespread, affecting about two-thirds of the area, while Douglas-fir mistletoe is present in about half the area. The recent sale has retained about 20 ft^2/acre of uninfected reserve trees. Follow-up treatment would remove all visibly-infected trees in the understory and all host trees within 30 to 50 feet of visible infection. Uninfected groups of pine and Douglas fir, and non-host trees (where available) would be thinned to an average 20-25 foot spacing. Crop-tree quality white pines should be retained in these areas.

Single tree selection areas tend to be more productive than the shelterwood blocks, and include white fir, along with Douglas-fir, as a major component. Ponderosa pine is only a minor component in most of these stands; where it occurs, the incidence of dwarf mistletoe is tends to be high. Douglas-fir dwarf mistletoe occurs only sporadically. The recent sale left 30 to 50 ft^2 of basal area in the overstory. Follow-up treatment would thin the poles and saplings to an average 20 to 25 feet. All mistletoe-infected trees and all host trees within 30 to 50 feet of visible infection would be cut. Although the incidence of blister rust is high in these stands, we recommend retaining rust-free white pines since at least some of them may be resistant.

Recommendations. We continue to recommend that more young trees—where available—should be retained in these treatment areas. Although a focus on fuels reduction has driven follow-up prescriptions and implementation, it should be emphasized that 1) existing stocking in these younger cohorts is usually patchy and may occur in only a small proportion of the acreage 2) regeneration has been problematic in some previously treated stands, especially in mixed conifer, 3) a "flat" q factor does not adequately allow for inevitable tree mortality over the length of a rotation, and 4) non-commercial species including oaks and junipers often proliferate following treatment. We think that the benefits of retaining more small, crop-tree quality trees on the landscape may easily outweigh the perceived risk.

We provide these comments not to be critical of ongoing efforts, but to lend support for more sustainable forestry practices. Dwarf mistletoe control efforts by the Mescalero Agency and Tribe have been exemplary, as have efforts to increase the ponderosa pine component in mixed conifer stands. We continue to encourage retention of rust-free white pines in project areas in order to promote genetic diversity in this species.

This proposed FY 2008 project (**Project 1**) should provide effective control of dwarf mistletoe, reduce potential losses from bark beetles, and make these stands more resilient to defoliating insects. As in recent years, this project would be implemented via contracts with individual Tribal members. Nearly 25,000 acres have been successfully treated at Mescalero utilizing Forest Health funding since 1991.

Project 2 represents a continuing effort by the Agency in monitoring a western spruce budworm outbreak. Budworm activity has been detected (on the ground) throughout much of the host type at Mescalero (and on adjacent National Forest land) the past 3 years; to date, overall damage has been light. A modest amount of FY 2008 funding is requested to help fund pheromone trapping, protocol branch beating, and data analyses. The information would supplement our aerial detection surveys and be used to inform Tribal leadership on the status of the outbreak and to support management planning.

Please contact Dave Conklin at (505) 842-3228, if you have questions about this evaluation.

Sincerely,

/s/ Dave Conklin (for)
DEBRA ALLEN-REID
New Mexico Zone Leader, Forest Health

cc: Gilbert Zepeda
John Waconda (Southwest Regional Office
BIA)
Bernie Ryan and Bill Hornsby (Mescalero Agency)
Thora Walsh-Padilla (Mescalero Tribe)